

FIG. 1

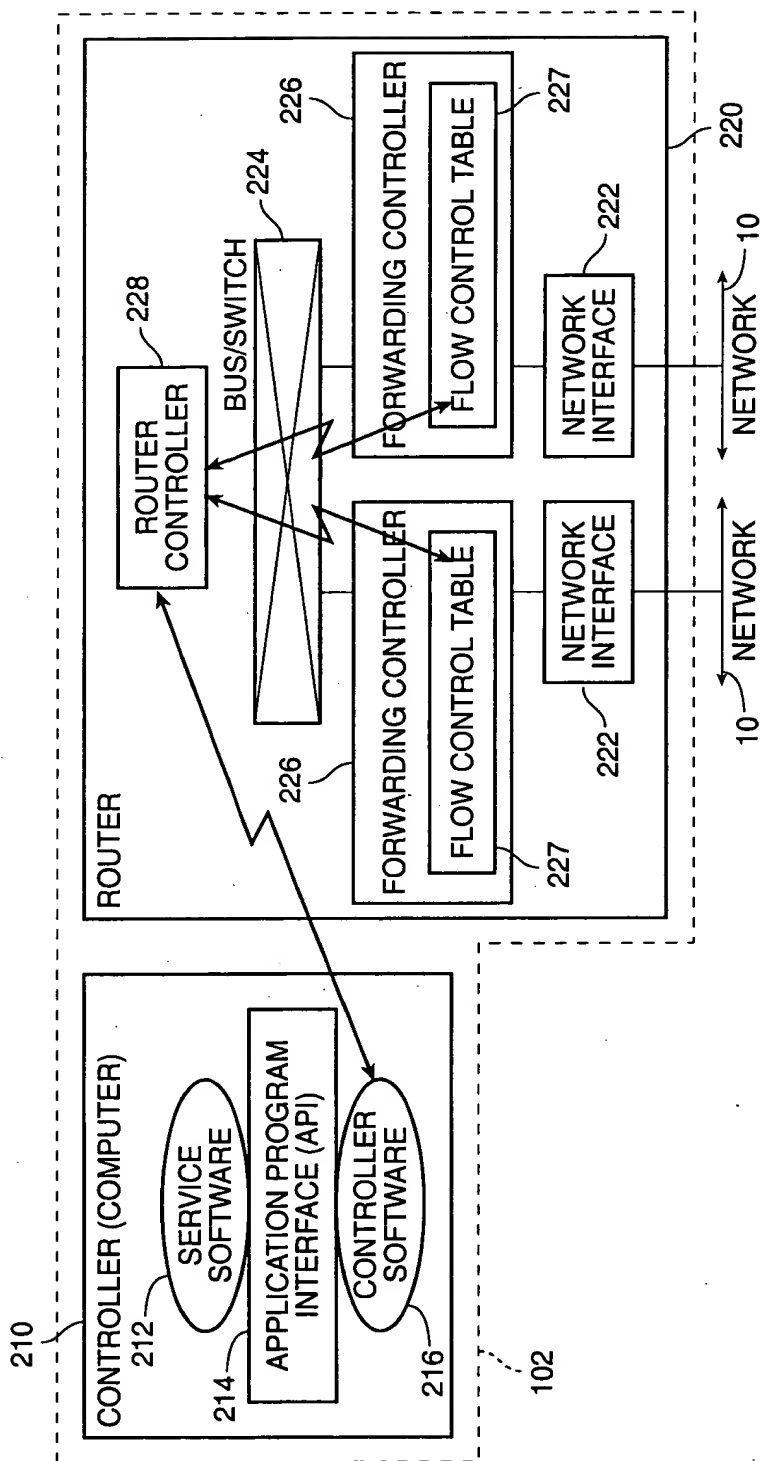


FIG. 2

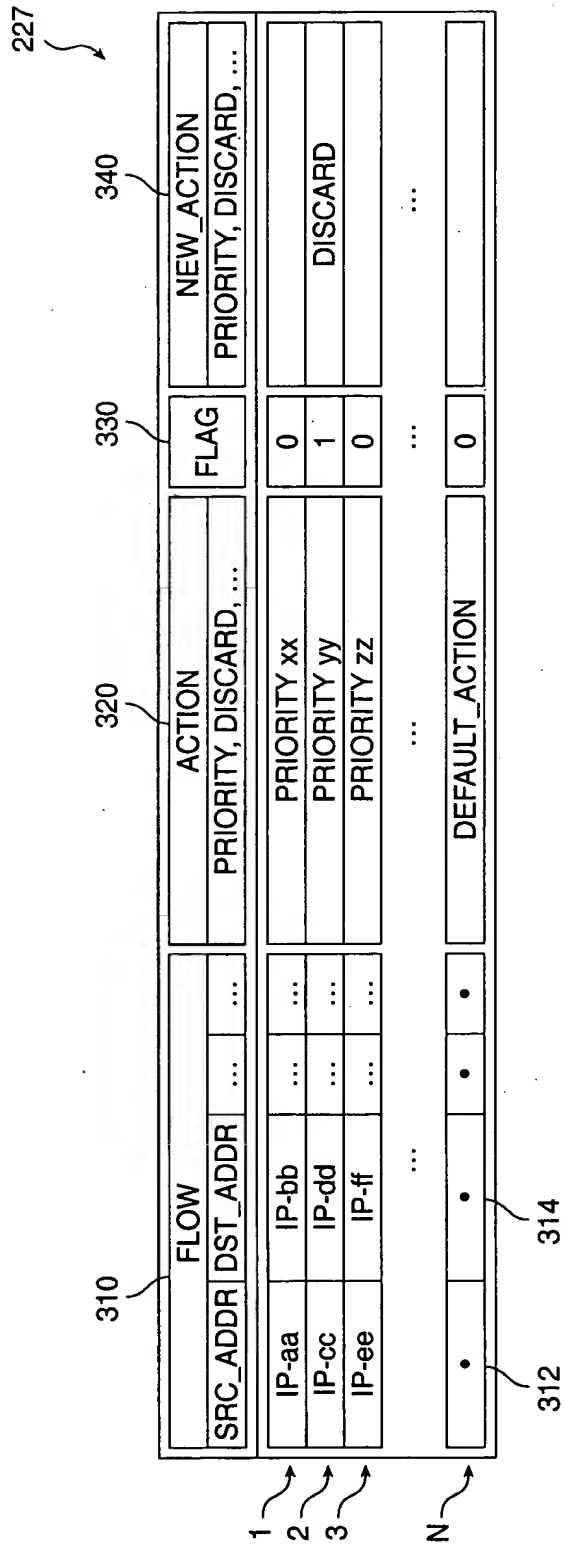


FIG. 3

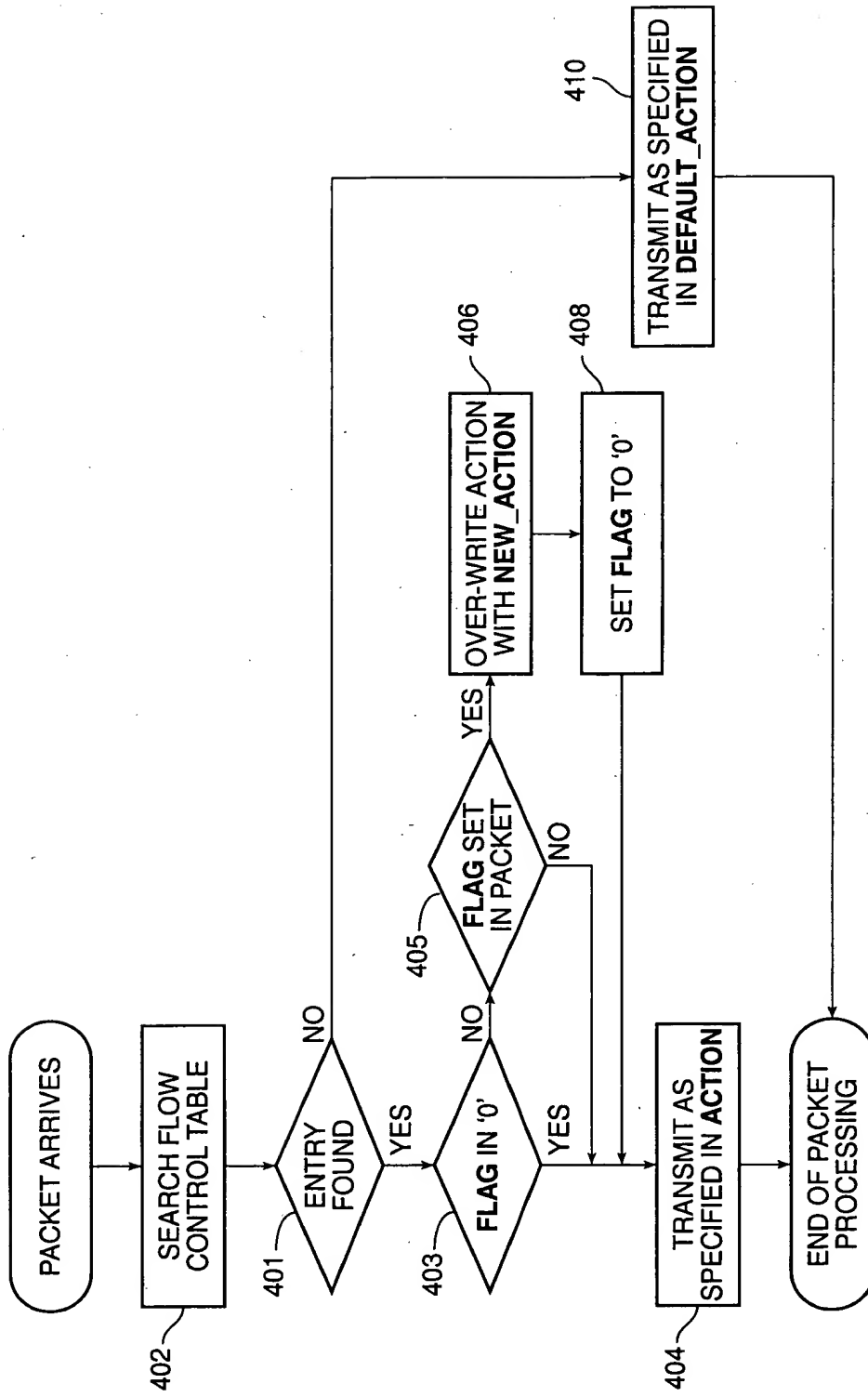


FIG. 4

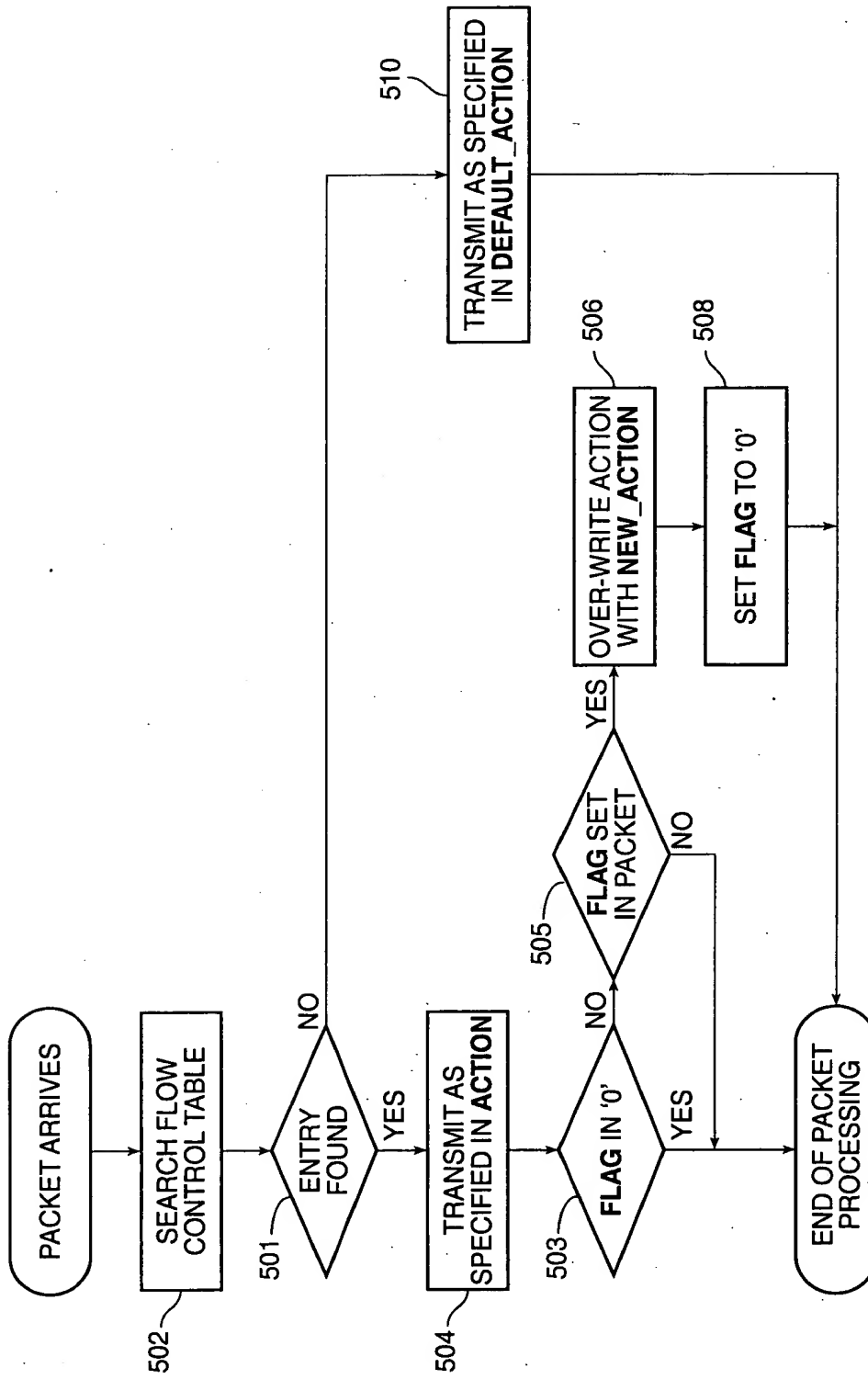


FIG. 5

```

struct END_POINT {
    IP_ADDRESS          ipaddr ;          /* may be range of addresses */
    unsigned short      port ;            /* may be range of ports    */
    ...
};

struct FLOW {
    END_POINT           source ;
    END_POINT           destination ;
    ...
    octet               protocol_id ;
    ...
};

struct ACTION {
    ...
    /* Specify priority, mode (DISCARD), etc), etc. */
    /* Could be a list, relating values of particular packet field to an ACTION */
    ...
};

enum FLAG { CHANGE_IMMEDIATE, CHANGE_SYNCHRONOUS };

boolean Set_QoS ( in FLOW target_flow, in ACTION new_action, in FLAG flag ) ;

```

FIG. 6

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710		720		730		740	
FLOW		ACTION		MASK		NEW_ACTION	
SRC_ADDR	DST_ADDR	PRIORITY, DISCARD, ...		PRIORITY, DISCARD, ...		PRIORITY, DISCARD, ...	
1	IP-aa	IP-bb	...	PRIORITY xx	0000		
2	IP-cc	IP-dd	...	PRIORITY yy	0100		
3	IP-ee	IP-ff	...	PRIORITY zz	0000		DISCARD
...		
N	•	•	•	DEFAULT_ACTION	0000		

712 714

FIG. 7

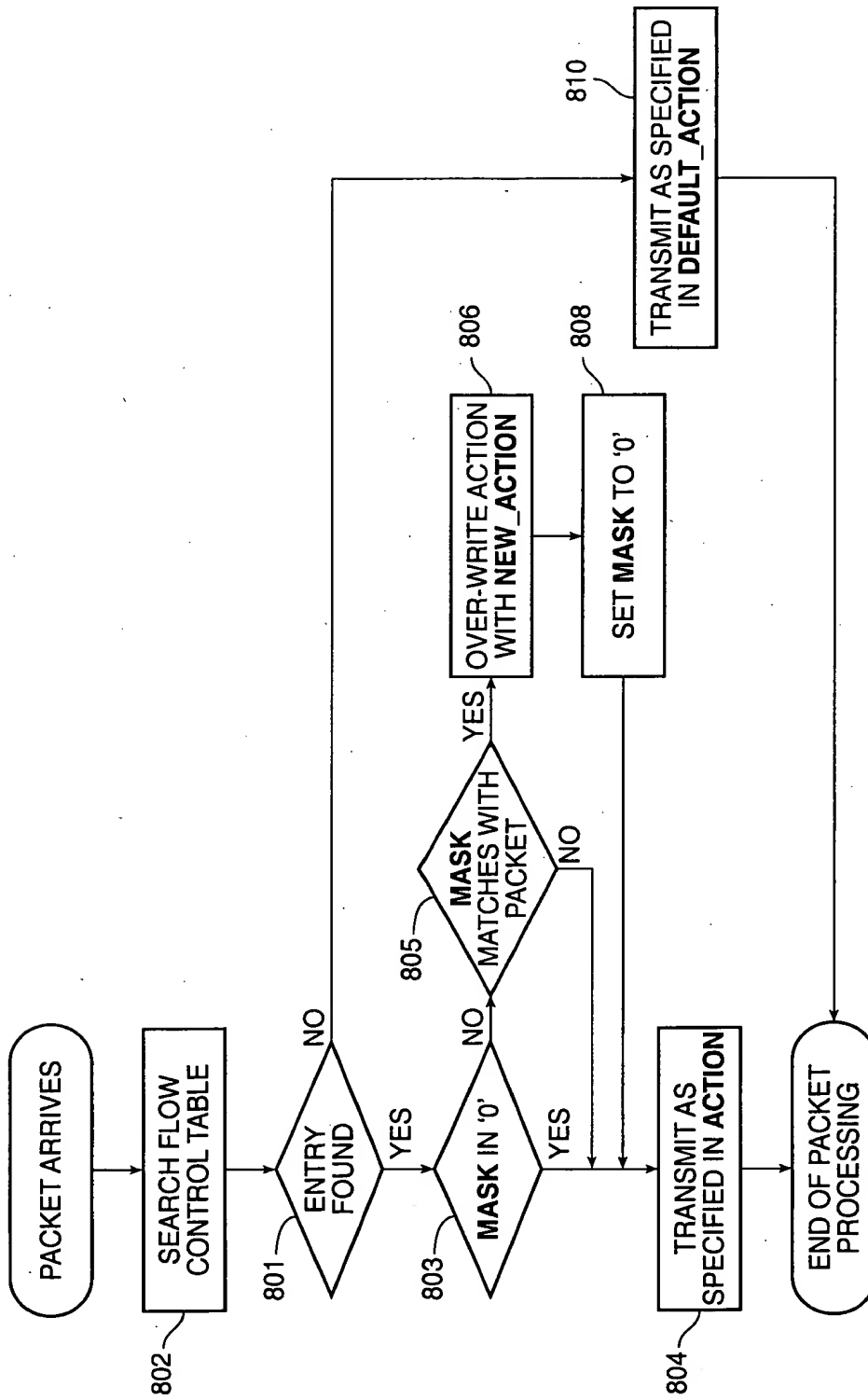


FIG. 8

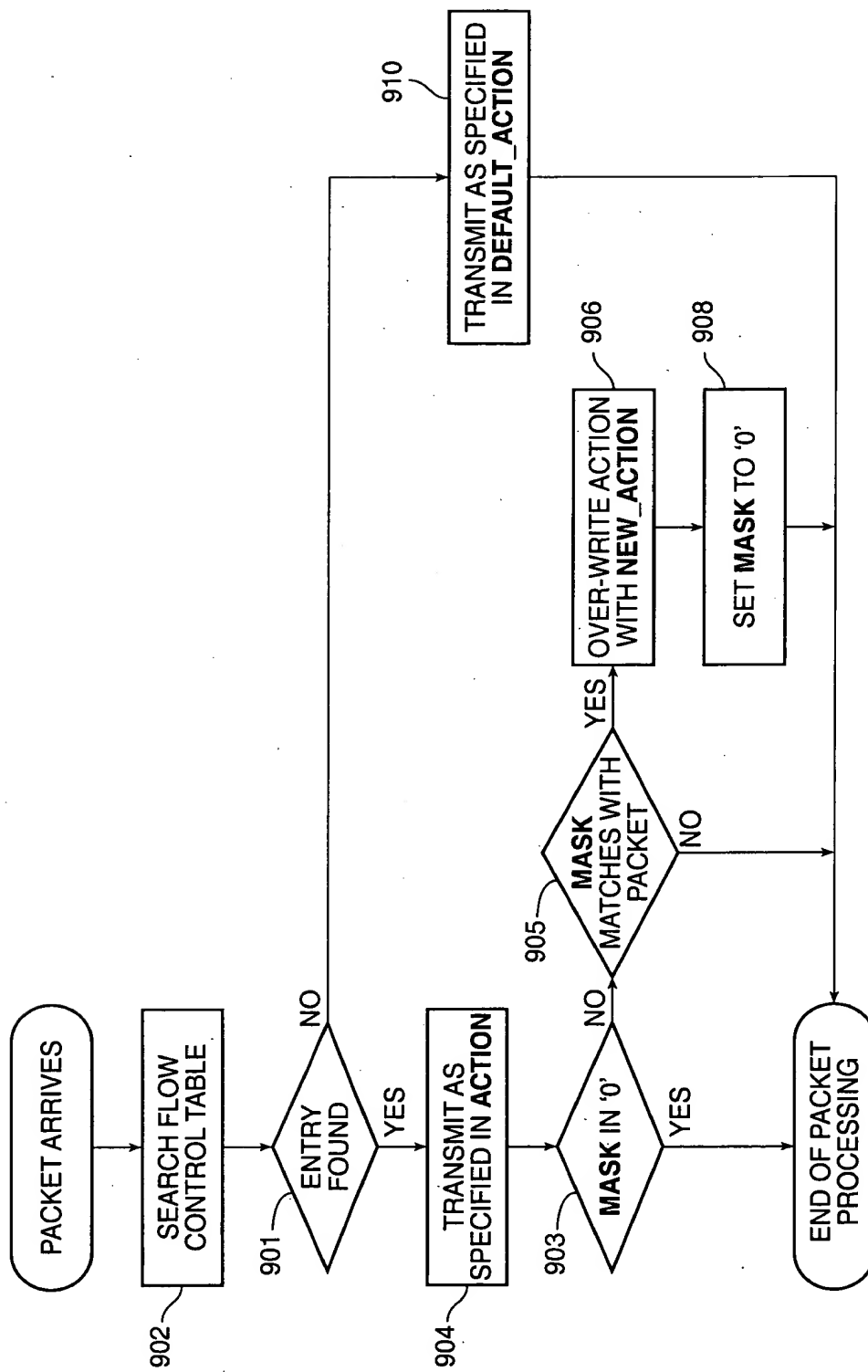


FIG. 9

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boolean Set_QoS (in FLOW target_flow, in ACTION new_action, in **octet** mask) ;

FIG. 10

enum HEADER_FIELD { TOS_FIELD, ... } ;

typedef sequence<octet> FIELD_VALUE ;

struct PAYLOAD_FIELD {
 unsigned short offset_position ;
 unsigned short field_field ;
};

enum MASK_POSITION { IN_HEADER, IN_PAYLOAD } ;

union MASK switch (MASK_POSITION) {
 case IN_HEADER:
 HEADER_FIELD target_header_field ;
 FIELD_VALUE field_value ;
 case IN_PAYLOAD ;
 PAYLOAD_FIELD target_payload_field ;
 FIELD_VALUE field_value ;
};

boolean Set_QoS (in FLOW target_flow, in ACTION new_action, in MASK mask) ;

FIG. 11

boolean Set_QoS (in FLOW target_flow, in ACTION new_action) ;

boolean Commit_Change (in MASK mask) ;

FIG. 12

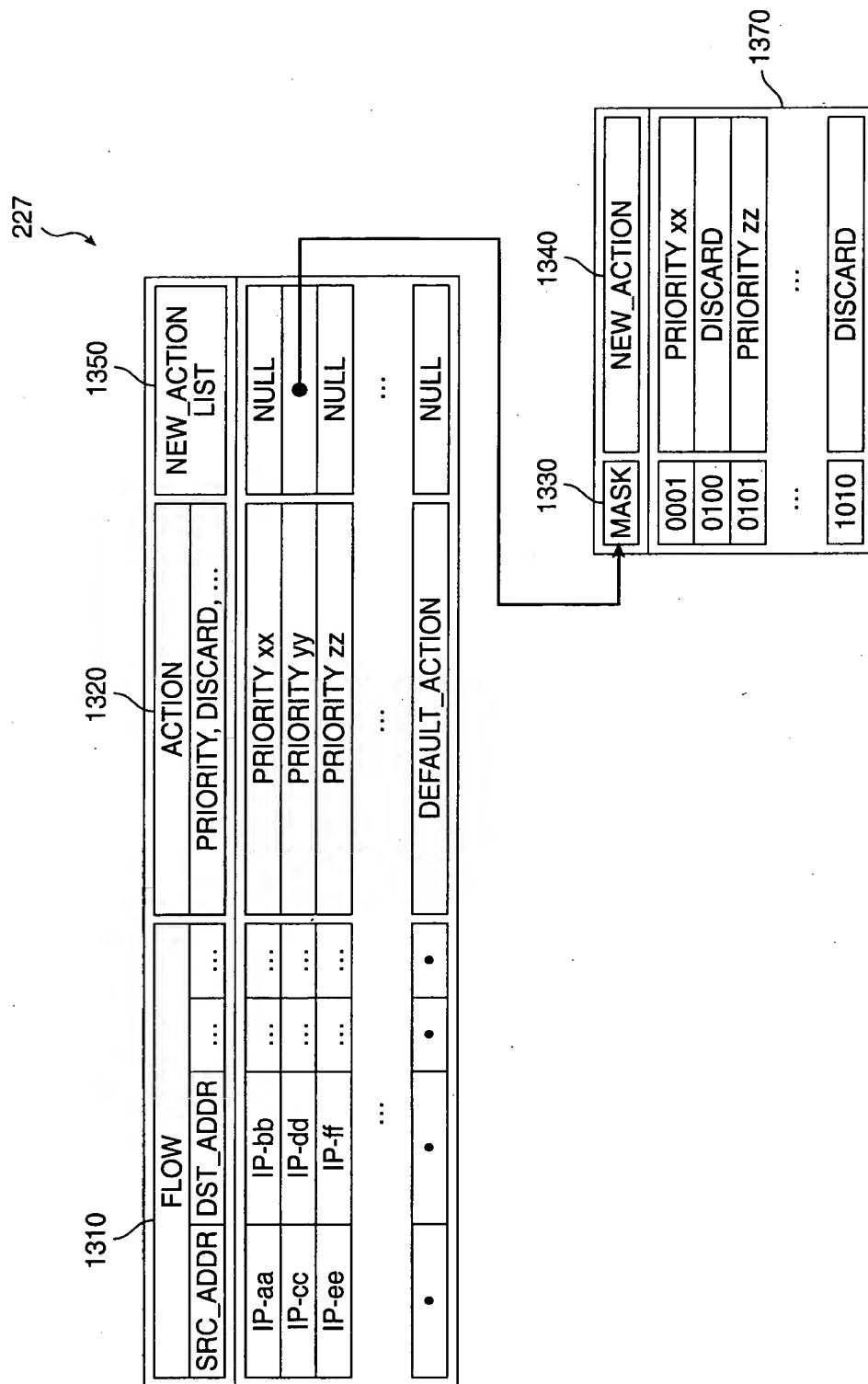


FIG. 13

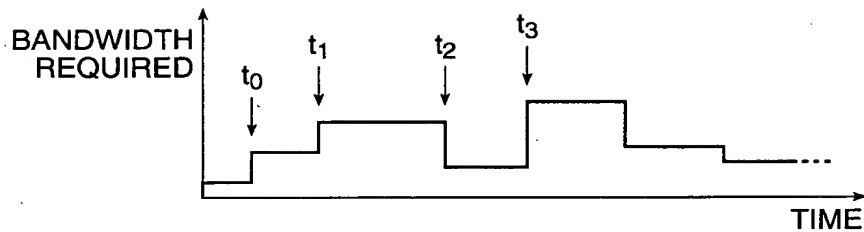


FIG. 14

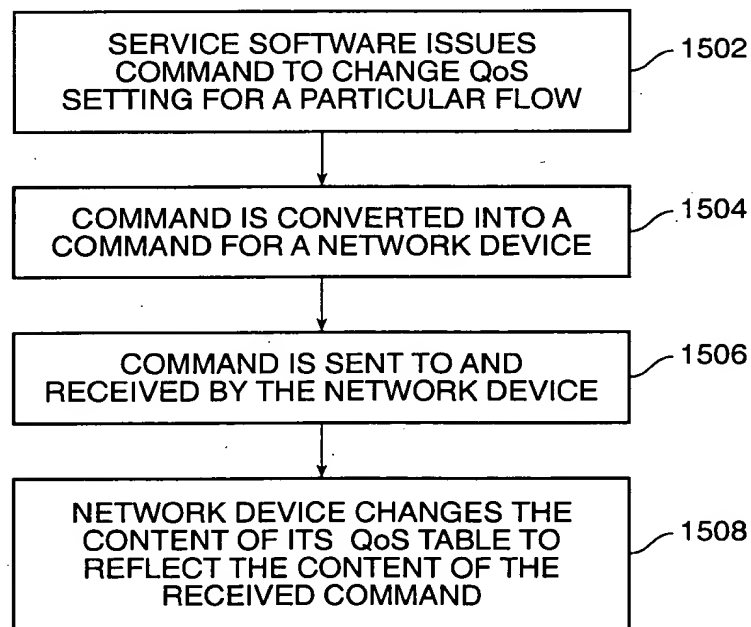


FIG. 15